

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Helmut Jerg  
Application Number: 10/575,035  
Filing Date: April 7, 2006  
Group Art Unit: 1714  
Examiner: Eric Wayne Golightly  
Title: DISHWASHER WITH VARIABLE HEAT DAMPING

Mail Stop Appeal Brief - Patents

Commissioner for Patents

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**APPEAL BRIEF**

Pursuant to 37 CFR 1.192, Appellant hereby files an appeal brief in the above-identified application. This Appeal Brief is accompanied by the requisite fee set forth in 37 CFR 1.17(f).

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(1) REAL PARTY IN INTEREST

The real party in interest is BSH Bosch und Siemens Hausgeräte GmbH.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 22, 25-27 and 29-42 are present in this application. Claims 1-21, 23, 24 and 28 have been canceled. Claims 22, 25-27 and 29-42 have been rejected and are on appeal.

(4) STATUS OF AMENDMENTS

No Amendments have been filed since the final Office Action dated August 10, 2010.

(5) SUMMARY OF CLAIMED SUBJECT MATTER AND SPECIFIC  
SUPPORT FOR INDEPENDENT CLAIMS

The invention relates to a dishwasher with variable heat damping and a method for operating such a dishwasher. In an exemplary embodiment (independent claim 37), a dishwasher includes a washing container 1 having a plurality of walls forming a volume 2 in which items to be washed are retained, and a heat damping layer 5 that at least partially surrounds the washing container. See p. 8, lines 24-29. The heat damping layer 5 has a

variable thermal conductivity in that the heat damping layer can be adjusted between at least a first thermal conductivity value at which thermal conductivity through the heat damping proceeds at a first rate and a second thermal conductivity value at which thermal conductivity through the heat damping proceeds at a second rate different than the first rate. See p. 9, lines 4-9.

The heat damping layer 5 contains a closed capsule containing hydrogen in which at least one metal hydride grid is arranged, which can form a chemical compound with the hydrogen and thus bind the hydrogen. The capsule has a selected one of a pressed glass and a non-pressed glass fibre core that is surrounded by a gastight jacket made of a selected one of a stainless steel sheet and a non-stainless steel sheet. See p. 9, lines 11-18.

The heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased. See p. 9, lines 20-25. The heat damping layer is further configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased. See p. 4, lines 27-31. The heat damping layer 5 is in heat-conducting contact with one of walls of the washing container 2 and with an outer wall of the dishwasher 1. The thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule. See p. 4, line 25 - p. 5, line 4.

In another exemplary embodiment (claim 32), a method is provided for cleaning and drying items that have been disposed in a dishwasher, such as the dishwasher of claim 37. The heat damping layer 5 can be adjusted between at least a relatively lower thermal conductivity value at which thermal conductivity through the heat damping layer 5 proceeds at a first rate and a relatively higher thermal conductivity value at which thermal conductivity through the heat damping layer proceeds at a second rate higher than the first rate. See p. 9, lines 4-9. The dishwasher 1 also has a heat generating means for generating heat in the washing container 2. See p. 9, lines 16-18. The method includes the steps of the heat damping layer 5 containing the capsule; in coordination with the execution of a first section of a washing program during which thermal energy is built up in the washing container 2 by the heat generating means, disposing the heat damping layer 5 at the relatively lower thermal conductivity value by cooling the capsule such that the thermal energy built up in the washing container is substantially preserved in the washing container 2; and in coordination with the execution of a second section of the washing program during which a drying process is carried out, disposing the heat damping layer 5 at the relatively higher thermal conductivity value by heating the capsule such that at least some of the thermal energy present in the washing container 2 succeeds to the surroundings via the heat damping layer. See p. 4, line 18 - p. 5, line 4.

Still another exemplary embodiment (independent claim 40) relates to a dishwasher generally corresponding to independent claim 37 and additionally includes a sound-damping layer 4 surrounding the washing container 2, where the heat damping layer 5 is disposed

between the sound-damping layer 4 and the walls of the washing container 1. See p. 8, lines 27-28. Yet another exemplary embodiment (independent claim 41) also relates to a dishwasher generally corresponding to independent claim 37 and additionally recites that the walls of the washing container 1 forming the volume in which items to be washed are retained are at least partially configured as condensing surfaces made of a flexible material comprising a metal film having an aluminum component. See p. 6, lines 24-29.

#### Additional Features

The capsule may be operable to function at a temperature of at least about 300°C when heated by a selected one of electrical heating means and non-electrical heating means. See p. 9, lines 16-18. The capsule may have an internal pressure of about 0.01 mbar at room temperature and an internal pressure of about 50 mbar at a temperature of about 300°C. See p. 9, lines 23-25. The thermal conductivity of the heat damping layer may be continuously adjustable to an arbitrary thermal conductivity value between the first and second thermal conductivity values. See p. 5, lines 15-23. A power of the current applied to the electrical heating means can be continuously regulated and thus the thermal conductivity of the heat damping layer can be adjusted to any thermal conductivity value approximately in a range between 0.3 W/m<sup>2</sup>K and 10 W/m<sup>2</sup>K. See p. 5, lines 18-23.

The heat damping layer 5 may be disposed in a selected one of a side wall and a door of the dishwasher 1, or the heat damping layer 5 may be disposed in a selected one of the top and the bottom of the dishwasher 1. See p. 5, line 25 - p. 6, line 3.

The thermal conductivity of the heat damping layer 5 may be regulated by a program control of the dishwasher. See p. 8, lines 1-2. Water deposited during the drying process in the washing container may be passed from the washing container 2 via at least one of discharge via a sump of the dishwasher, discharge via a discharge pump, and discharge via a means other than a sump or a discharge pump of the dishwasher. See p. 8, lines 9-13.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 22, 25, 29, 30 and 37-39 are unpatentable under 35 U.S.C. §103(a) over German Patent Publication DE 196 22 882 (DE '882) in view of German Patent Publication DE 196 47 567 (DE '567).
2. Whether claims 26 and 27 are unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Bovenkerk (U.S. Patent No. 3,167,159).
3. Whether claim 31 is unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Lampman et al. (U.S. Patent No. 4,746,177).
4. Whether claims 32-35 are unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Japanese Patent Publication 2002-336180 (JP '180).
5. Whether claim 36 is unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567, JP '180 and Milocco (U.S. Patent No. 5,273,061).
6. Whether claim 40 is unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Tilton et al. (U.S. Patent No. 6,539,955).
7. Whether claim 41 is unpatentable under 35 U.S.C. §103(a) over DE '882 in

view of DE '567 and Williamson (U.S. Patent No. 3,387,382).

(7) ARGUMENT

1. *Claims 22, 25, 29, 30, 37-39 and 42 are not unpatentable under 35 U.S.C.*

*§103(a) over German Patent Publication DE 196 22 882 (DE '882) in view of German Patent Publication DE 196 47 567 (DE '567).*

Independent claim 37 references the dependency of the thermal conductivity value of the heat damping layer on the pressure in the capsule. The specification describes that upon application of an electric current to the electrical heating means, the capsule is heated, which has the effect that the hydrogen previously bound in the metal hydride grid is released. The hydrogen thus released then diffuses in the entire glass fiber core of the heat damping layer and thereby increases the internal pressure of the capsule. The specification describes the pressure increase from about 0.01 mbar to about 50 mbar, an order of magnitude of 5,000 times. See p. 4, lines 18-23. The specification further describes that as a result of the increase in the internal pressure and as a consequence of the release of the hydrogen in the capsule, its k-value also increases, i.e., the thermal conductivity of the capsule or the entire heat damping layer.

Cooling of the capsule has the opposite effect where the free hydrogen forms a chemical compound with the metal hydride grid and is thereby resorbed. The specification describes that "this has the consequence of the pressure in the capsule of the variable heat damping layer drops and as a result the thermal conductivity of the capsule or the entire heat



damping layer is reduced.” Moreover, the specification describes that as a result of the pressure reduction in the capsule of the variable heat damping layer, its k-value also decreases, i.e., the thermal conductivity of the capsule or the entire heat damping layer. See p. 4, line 25 – p. 5, line 4. It is thus clear that the thermal conductivity value of the heat damping layer is dependent on the pressure in the capsule. Independent claim 37 specifically references this dependency.

In contrast with this feature of the invention, DE ‘567 provides that the heat conductivity of the heat insulation material is not dependent, or only slightly so, upon the gas pressure in the vacuum heat insulation panel. See the English-language Abstract. Moreover, DE ‘567 describes that the heat insulation material is micro-porous or nano-porous. In the context of pressure dependency, the present specification distinguishes such material, describing that the heat damping layer of the dishwasher according to the invention contains an evacuable material having a comparatively coarse pore structure which changes its thermal conductivity more strongly than nano-microstructured substances in the event of small vacuum pressure fluctuations. The specification further describes that this property can be used to produce the variable heat damping layer of the invention. See, p. 3, lines 28-32.

Appellant thus submits that the DE ‘882 and DE ‘567 combination falls short of the invention defined in claim 37 and that this rejection is misplaced.

In the Response to Arguments section of the Examiner’s Answer, in direct contrast with the specific teachings in DE ‘567, the Examiner contends that “note that the thermal conductivity value of the heat conductivity insulation panel is thereby dependent on the

pressure of the capsule because DE '567 clearly shows that when the pressure increases, the thermal conductivity value also increases,” referring to p. 2, lines 16-20 of a machine-generated translation. In describing existing technology, DE '567 references thermal conductivity of evacuated insulation from woven glass fibers. With the prior art woven glass fibers, with increasing gas pressure of hydrogen, thermal conductivity is increased. In describing the invention, however, DE '567 provides that “the thermal conductivity of the insulation of the getter material may show [reduced insulation] in contrast to the thermal conductivity of the fill material in the panel with little or no dependence on gas pressure.”

With regard to the dependent claims, Appellant submits that these claims are allowable at least by virtue of their dependency on an allowable independent claim and also because they recite additional patentable subject matter.

Reversal of the rejection is requested.

2. *Claims 26 and 27 are not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Bovenkerk.*

The Bovenkerk reference does not correct the deficiencies noted above with regard to DE '882 in view of DE '567, and Appellant thus submits that these dependent claims are allowable at least by virtue of their dependency on an allowable independent claim. Reversal of the rejection is requested.

3. *Claim 31 is not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Lampman.*

The Lampman reference similarly does not correct the deficiencies noted above with regard to DE '882 in view of DE '567, and Appellant thus submits that this dependent claim is allowable at least by virtue of its dependency on an allowable independent claim. Reversal of the rejection is requested.

4. *Claims 32-35 are not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and JP '180.*

Independent claim 32 defines the steps of . . . “disposing the heat damping layer at the relatively lower thermal conductivity value by cooling the capsule and thereby dropping the pressure in the capsule such that the thermal energy built up in the washing container is substantially preserved in the washing container,” and . . . “disposing the heat damping layer at the relatively higher thermal conductivity value by heating the capsule and thereby increasing the pressure in the capsule such that at least some of the thermal energy present in the washing container succeeds to the surroundings via the heat damping layer, wherein the thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule.” As discussed above, DE '567 provides that the heat conductivity of the heat insulation material is not dependent, or only slightly so, upon the gas pressure in the vacuum heat insulation panel. JP '180 does not correct this shortcoming. As such, Appellant submits that the rejection is misplaced.

With regard to the dependent claims, Appellant submits that these claims are allowable at least by virtue of their dependency on an allowable independent claim and also because they recite additional patentable subject matter.

Reversal of the rejection is requested.

5. *Claim 36 is not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567, JP '180 and Milocco.*

The Milocco reference similarly does not correct the deficiencies noted above with regard to DE '882 in view of DE '567, and Appellant thus submits that this dependent claim is allowable at least by virtue of its dependency on an allowable independent claim. Reversal of the rejection is requested.

6. *Claim 40 is not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Tilton.*

Like claim 37, claim 40 recites that the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased and the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased. Additionally, the heat damping layer is in heat-conducting contact with one of walls of the washing container and with an outer wall of the dishwasher, wherein the thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule. As discussed above, at least these features of the invention are lacking in DE '882 and DE '567. The Tilton patent does not correct this deficiency, and for at least this reason, Appellant submits that the rejection is misplaced.

In addition, claim 40 recites that the dishwasher includes a sound-damping layer surrounding the washing container, where the heat damping layer is disposed between the sound-damping layer and the walls of the washing container. In this context, the Office Action cites the Tilton patent, contending that Tilton discloses a dishwasher comprising a sound damping layer surrounding the washing container. Appellant submits that those of ordinary skill in the art would not be led to interpose a heat damping layer between a sound-damping layer and the walls of a washing container in view of DE '882, DE '567 or Tilton. Indeed, nothing in the Tilton patent suggests that a sound-damping layer would be positioned anywhere but directly adjacent the walls of the washing container. For this reason also, Appellant submits that the rejection of claim 40 is misplaced. Reversal of the rejection is requested.

7. *Claim 41 is not unpatentable under 35 U.S.C. §103(a) over DE '882 in view of DE '567 and Williamson.*

Claim 41 recites that the heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased. Claim 41 additionally recites that the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased, where the heat damping layer is in heat-conducting contact

with one of walls of the washing container and with an outer wall of the dishwasher. As a consequence of this structure, the thermal conductivity value of the heat damping layer is dependent on the pressure in the capsule. With reference to the discussion above, at least these features of the invention are lacking in DE '882 and DE '567. The Williamson patent does not correct this shortcoming, and for at least this reason, Appellant submits that the rejection is misplaced. Reversal of the rejection is requested.

(8) CONCLUSION

In view of the foregoing discussion, Appellant respectfully requests reversal of the Examiner's rejections.

Respectfully submitted,

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December 17, 2010

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CLAIMS APPENDIX

1-21. (Canceled)

22. (Rejected) The dishwasher according to claim 37, wherein the capsule is operable to function at a temperature of at least about 300°C when heated by a selected one of electrical heating means and non-electrical heating means.

23-24. (Canceled)

25. (Rejected) The dishwasher according to claim 37, wherein the capsule has an internal pressure of about 0.01 mbar at room temperature and an internal pressure of about 50 mbar at a temperature of about 300°C.

26. (Rejected) The dishwasher according to claim 37, wherein the thermal conductivity of the heat damping layer is continuously adjustable to an arbitrary thermal conductivity value between the first and second thermal conductivity value.

27. (Rejected) The dishwasher according to claim 37, wherein a power of the current applied to the electrical heating means can be continuously regulated and thus the thermal conductivity of the heat damping layer can be adjusted to any thermal conductivity value approximately in a range between 0.3 W/m<sup>2</sup>K and 10 W/m<sup>2</sup>K.

28. (Canceled)

29. (Rejected) The dishwasher according to claim 37, wherein the heat damping layer is disposed in a selected one of a side wall and a door of the dishwasher.

30. (Rejected) The dishwasher according to claim 37, wherein the heat damping layer is disposed in a selected one of the top and the bottom of the dishwasher.

31. (Rejected) The dishwasher according to claim 37, wherein a wall of the washing container bounding the interior of the washing container is at least partially configured as a condensing surface made of flexible material, comprising at least one of a plastic film, a metal

film having a selected one of an aluminum component and a non-aluminum component, and a material that is not a plastic film or a metal film.

32. (Rejected) A method for cleaning and drying items that have been disposed in a dishwasher, the dishwasher having at least one washing container for retaining items to be washed, the washing container having a heat damping layer which at least partially surrounds the washing container and the heat damping layer having a variable thermal conductivity in that the heat damping layer can be adjusted between at least a relatively lower thermal conductivity value at which thermal conductivity through the heat damping layer proceeds at a first rate and a relatively higher thermal conductivity value at which thermal conductivity through the heat damping layer proceeds at a second rate higher than the first rate, the dishwasher having a heat generating means for generating heat in the washing container, the heat damping layer having a closed capsule containing hydrogen in which at least one metal hydride grid is arranged, which can form a chemical compound with the hydrogen and thus bind the hydrogen, the capsule has a selected one of a pressed glass and a non-pressed glass fibre core that is surrounded by a gastight jacket made of a selected one of a stainless steel sheet and a non-stainless steel sheet, the heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased and the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased, and the heat damping layer is in heat-conducting contact with one of walls of the washing container and with an outer wall of the dishwasher and the dishwasher being operable to execute at least one washing program comprising the following steps, the method comprising the steps of:

the heat damping layer containing the capsule;



in coordination with the execution of a first section of a washing program during which thermal energy is built up in the washing container by the heat generating means, disposing the heat damping layer at the relatively lower thermal conductivity value by cooling the capsule and thereby dropping the pressure in the capsule such that the thermal energy built up in the washing container is substantially preserved in the washing container; and

in coordination with the execution of a second section of the washing program during which a drying process is carried out, disposing the heat damping layer at the relatively higher thermal conductivity value by heating the capsule and thereby increasing the pressure in the capsule such that at least some of the thermal energy present in the washing container succeeds to the surroundings via the heat damping layer, wherein the thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule.

33. (Rejected) The method according to claim 32, wherein before or during a washing process, a clear rinsing process or during a first section of the drying process the heat damping layer is adjusted to a low thermal conductivity and thermal energy is built up in the washing container by heat generating means, and during the drying process or during the second section of the drying process the heat damping layer is adjusted to a high thermal conductivity.

34. (Rejected) The method according to claim 32, wherein the thermal conductivity of the heat damping layer is regulated by a program control of the dishwasher.

35. (Rejected) The method according to claim 32, wherein the thermal conductivity of the heat damping layer is regulated by an electric heating means used to heat the heat damping layer.

36. (Rejected) The method according to claim 32, wherein water deposited during the drying process in the washing container is passed from the washing container via at least one of discharge via a sump of the dishwasher, discharge via a discharge pump, and discharge via a means other than a sump or a discharge pump of the dishwasher.

37. (Rejected) A dishwasher comprising:

a washing container, the washing container having a plurality of walls forming a volume in which items to be washed are retained; and

a heat damping layer that at least partially surrounds the washing container, the heat damping layer having a variable thermal conductivity in that the heat damping layer can be adjusted between at least a first thermal conductivity value at which thermal conductivity through the heat damping proceeds at a first rate and a second thermal conductivity value at which thermal conductivity through the heat damping proceeds at a second rate different than the first rate, the heat damping layer containing a closed capsule containing hydrogen in which at least one metal hydride grid is arranged, which can form a chemical compound with the hydrogen and thus bind the hydrogen, the capsule has a selected one of a pressed glass and a non-pressed glass fibre core that is surrounded by a gastight jacket made of a selected one of a stainless steel sheet and a non-stainless steel sheet, the heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased, and the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased, and the heat damping layer is in heat-conducting contact with one of walls of the washing container and with an outer wall of the dishwasher, wherein the thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule.

38. (Rejected) The dishwasher according to claim 37, wherein a given portion of the heat damping layer has its thermal content respectively increased in correspondence with the heating of the capsule and decreased in correspondence with the cooling of the capsule, this given portion of the heat damping layer overlies the one wall of the washing container.

39. (Rejected) The dishwasher according to claim 38, wherein the given portion of the heat damping layer is intermediate the one wall of the washing container and the outer wall of the dishwasher.

40. (Rejected) A dishwasher comprising:

a washing container, the washing container having a plurality of walls forming a volume in which items to be washed are retained;

a sound-damping layer surrounding the washing container; and

a heat damping layer that at least partially surrounds the washing container and is disposed between the sound-damping layer and the walls of the washing container, the heat damping layer having a variable thermal conductivity in that the heat damping layer can be adjusted between at least a first thermal conductivity value at which thermal conductivity through the heat damping proceeds at a first rate and a second thermal conductivity value at which thermal conductivity through the heat damping proceeds at a second rate different than the first rate, the heat damping layer containing a closed capsule containing hydrogen in which at least one metal hydride grid is arranged, which can form a chemical compound with the hydrogen and thus bind the hydrogen, the capsule has a selected one of a pressed glass and a non-pressed glass fibre core that is surrounded by a gastight jacket made of a selected one of a stainless steel sheet and a non-stainless steel sheet, the heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased and the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased, and the heat damping layer is in heat-conducting contact with one of walls of the washing container and with an outer wall of the dishwasher, wherein the thermal

conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule.

41. (Rejected) A dishwasher comprising:

a washing container, the washing container having a plurality of walls forming a volume in which items to be washed are retained; and

a heat damping layer that at least partially surrounds the washing container, the heat damping layer having a variable thermal conductivity in that the heat damping layer can be adjusted between at least a first thermal conductivity value at which thermal conductivity through the heat damping proceeds at a first rate and a second thermal conductivity value at which thermal conductivity through the heat damping proceeds at a second rate different than the first rate, the heat damping layer containing a closed capsule containing hydrogen in which at least one metal hydride grid is arranged, which can form a chemical compound with the hydrogen and thus bind the hydrogen, the capsule has a selected one of a pressed glass and a non-pressed glass fibre core that is surrounded by a gastight jacket made of a selected one of a stainless steel sheet and a non-stainless steel sheet, the heat damping layer is configured such that heating of the capsule has the effect that the hydrogen previously bound in the metal hydride grid is released, the pressure in the capsule increases, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is increased and the heat damping layer is configured such that cooling of the capsule has the effect that the free hydrogen is resorbed with the metal hydride grid in a chemical compound, the pressure in the capsule drops, and the thermal conductivity of at least one of the capsule and the entire heat damping layer is decreased, and the heat damping layer is in heat-conducting contact with one of walls of the washing container and with an outer wall of the dishwasher, wherein the thermal conductivity value of the heat damping layer is thereby dependent on the pressure in the capsule;

wherein the walls of the washing container forming the volume in which items to be washed are retained are at least partially configured as condensing surfaces made of a flexible material comprising a metal film having an aluminium component.

42. (Rejected) The dishwasher according to claim 37, wherein a pressure difference in the capsule between when the thermal conductivity value of the heat damping layer is increased versus when it is decreased is on an order of 5000 times.

EVIDENCE APPENDIX

None

**RELATED APPEALS APPENDIX**

None